

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant :	Vanu Bose et al.	Art Unit :	2611
Serial No. :	10/716,180	Examiner :	Unknown
Filed :	November 17, 2003	Conf. No. :	3813
Title :	A COMMUNICATIONS SYSTEM		

**MAIL STOP AMENDMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Applicants request consideration of the references listed on the attached PTO-1449 form. Under 37 C.F.R. § 1.98 (a)(2)(ii), only copies of the or non-patent literature are enclosed. Copies of any listed U.S. patents or U.S. patent application publications can be provided upon request.

This statement is being filed before the receipt of a first Office Action on the merits. Please apply any charges or credits to deposit account no. 06-1050, attorney docket 12869-008001.

Respectfully submitted,

Date: 1/23/07



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Substitute Form PTO-1449 (Modified)  <b>Information Disclosure Statement by Applicant</b> (Use several sheets if necessary)  (37 CFR §1.98(b))	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 12869-008001	Application No. 10/716,180
	Applicant Vanu Bose et al.		
	Filing Date November 17, 2003	Group Art Unit 2611	

U.S. Patent Documents							
Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	AA	2005/0163075	7/28/2005	Malladi et al.			
	AB	2004/0114623	6/17/2004	Smith			
	AC	6,920,125	7/19/2005	Wu			
	AD	2004/0209580	10/21/2004	Steinheider et al.			
	AE	2004/0228854	10/13/2005	Steinheider et al.			
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	AG	2006/0007919	1/12/2006	Bose et al.			
	AH	2004/0062214	4/1/2004	Schnack et al.			
	AI	5,901,182	05/1999	Kot, Alan D.			
	AJ	6,154,507	11/2000	Bottomley, Gregory E.			
	AK	6,356,911	03/2002	Shibuya, Tetsuo			
	AL	6,490,327	12/2002	Shah, Ali R.			
	AM	6,788,750	09/2004	Reuven et al.			
	AN	6,381,726	4/30/2002	Weng			
	AO	6,442,392	08/2002	Ruutu et al.			
	AP	6,757,544	06/2004	Rangarajan et al.			
	AQ	7,013,150	03/2006	Okanoue et al.			
	AR	6,978,124	12/2005	Benes et al.			
	AS	6,915,123	07/2005	Daudelin et al.			
	AT	6,546,256	04/2003	Maloney et al.			
	AU	5,973,643	10/1999	Hawkes et al.			
	AV	6,560,462	05/2003	Ravi et al.			
	AW	2004/0259571	12/2004	Joshi, Avinash			
	AX	2003/0012265	01/2003	Lin, Tsui-Tsai			
	AY	6,987,798	01/17/2006	Ahn et al.			
	AZ	7,068,638	6/26/2006	Choi et al.			
	AAA	2003/0063595	04/03/2003	You et al.			

Examiner Signature	Date Considered
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

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U.S. Patent Documents							
Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	ABB	2004/0252665	12/16/2004	Clark et al.			
	ACC	6,016,322	1/18/2000	Goldman			
	ADD	6,285,876	9/4/2001	Zhong			
	AEE	6,631,142	10/7/2003	Miyamoto et al.			

Foreign Patent Documents or Published Foreign Patent Applications								
Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation	
							Yes	No
	AFF							
	AGG							
	AHH							
	AII							
	AJJ							

Other Documents (include Author, Title, Date, and Place of Publication)		
Examiner Initial	Desig. ID	Document
	AKK	Cormen et al., 2001, Introduction to Algorithms Second Edition, McGraw-Hill, Boston.
	ALL	Ekroot, L. and Dolinar, S., "A* Decoding of Block Codes", <u>IEEE Transactions on Communications</u> , Vol. 44 (9):1052-1056 (1996).
	AMM	Fano, "A Heuristic Discussion of Probabilistic Decoding", <u>IEEE Transactions on Information Theory</u> , Vol. IT9(1):64-74 (1963).
	ANN	Forney, Jr., "Convolutional Codes II. Maximum-Likelihood Decoding", <u>Information and Control</u> , Vol. 25:222-266 (1974).
	AOO	Forney, Jr., "The Viterbi Algorithm", <u>Proceedings of the IEEE</u> , Vol. 61(3):268-278 (1973).
	APP	Han et al., "Efficient Priority-First Search Maximum-Likelihood Soft-Decision Decoding of Linear Block Codes", <u>IEEE Transactions on Information Theory</u> , Vol. 39(5):1514-1523 (1993).
	AQQ	Han et al., "A Maximum-Likelihood Soft-Decision Sequential Decoding Algorithm for Binary Convolutional Codes", <u>IEEE Transactions on Communications</u> , Vol. 50(2):173-178 (2002).
	ARR	Heller, J. and Jacobs, I. M., "Viterbi Decoding for Satellite and Space Communication", <u>IEEE Transactions on Communication Technology</u> , Vol. Com-19(5):835-848 (1971).
	ASS	Kang, G. and Zhang, P., "The Implementation of Viterbi Decoder on TMS320C6201 DSP in WCDMA System", <u>Beijing University of Posts and Telecommunications</u> .
	ATT	Rajagopal, S., "A Real-Time Baseband Communications Processor for High Data Rate Wireless Systems", Dept. of Electrical and Computer Engineering, Rice University (2002).

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	AUU	Sereni et al., "A Software Re-Configurable Architecture for 3G and Wireless Systems", University of Perugia, Italy (2000).
	AVV	Varga, R. and Harrison, M. (eds), The Art of Computer Programming-Second Edition, Addison-Wesley, Massachusetts (1973).
	AWW	Viterbi, "Error Bounds for Convolutional Codes and an Asymptotically Optimum Decoding Algorithm", IEEE Transactions on Information Theory, Vol. IT-13(2):260-269 (1967).
	AXX	Wicker, S. B., Error Control Systems for Digital Communication and Storage, Prentice Hall, Englewood Cliffs, NJ (1995).
	YYY	International Search Report - PCT/US03/25218
	AZZ	M. Abramowitz, et al, <u>Handbook of Mathematical Functions with Formulas, Graphs and Mathematical Tables</u> , Dover Publications, New York, 1965.
	AAAA	J.L. Massey, <u>Threshold Decoding</u> , Technical Report 410, MIT Press, Cambridge, MA, 1963
	ABBB	K. Paterson, et al., <u>Efficient Decoding Algorithms for Generalised Reed-Muller Codes</u> , Technical Report, Hewlett-Packard Labs, Nov. 1998
	ACCC	Bob Pearson, <u>Complementary Code Keying Made Simple</u> , Application Note 9850, <a href="http://www.intersil.com/data/an/an9/an9850/an9850.pdf">http://www.intersil.com/data/an/an9/an9850/an9850.pdf</a> , May 2000
	ADDD	I. Reed, <u>A Class of Multiple-Error-Correcting Codes and the Decoding Scheme</u> , IRE Transactions on Information Theory, PGIT-4:38-49, September 1954
	AEEE	R. van Nee, <u>OFDM Codes for Peak-to-Average Power Reduction and Error Correction</u> , In Proc. IEEE Globecom '96, London, England, pages 740-744, Nov. 1996
	AFFF	G.N. Watson, <u>A Treatise on the Theory of Bessel Functions</u> , Second Edition, Cambridge University Press, 1952
	AGGG	R.K. Yarlagadda, et al., <u>Hadamard Matrix Analysis and Synthesis</u> , Luwer Academic Publishers, Dordrecht, 1997.
	AHHH	International Search Report PCT/US03/25219 mailed 12/16/03
	AIII	<a href="http://www.fcc.gov/911/enhanced/">http://www.fcc.gov/911/enhanced/</a>
	AJJJ	<a href="http://www.arraycomm.com/">http://www.arraycomm.com/</a>
	AKKK	EIA/TIA/IS-95 Mobile Station-Base Station Compatibility Standard for Dual-Mode Wideband Spread Spectrum Cellular System, Telecommunications Industry Association, July 1993, pps. 6-1 to 6-8.
	ALLL	L. Trevisan, "Some Applications of Coding Theory in Computational Complexity," Quaderni di Matematica, Vol. 13, pp. 347-424, 2004.
	AMMM	J.S. Lee and L.E. Miller, CDMA Systems Engineering Handbook, Artech House, Boston, 1998.
	ANNN	A.J. Viterbi, CDMA: Principles of Spread Spectrum Communication, Addison-Wesley, Reading, MA, 1995.
	AOOO	A.V. Oppenheim and R.W. Schaffer, with J.R. Buck, Discrete-Time Signal Processing, 2nd ed., Prentice Hall, Upper Saddle River, NJ, 1999.
	APPP	V.S. Pless and W.C. Huffman, Eds., Handbook of Coding Theory, Vol. 1, Elsevier Science, Amsterdam, 1998.

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	AQQQ	S.J. MacMullan and O.M. Collins, "A Comparison of Known Codes, Random Codes, and the Best Codes," IEEE Transactions on Information Theory, Vol. 44, No. 7, pp 3009-3022, Nov. 1998.
	ARRR	M. Luby, "LT-codes," in Proceedings of the 43rd Annual IEEE Symposium on the Foundations of Computer Science (FOCS), pp.271-280, 2002.
	ASSS	A. Shokrollahi, "Raptor codes," in Proceedings of the IEEE International Symposium on Information Theory, p. 36, 2004.
	ATTT	International Search Report, PCT/US05/07136, mailed on December 26, 2006, 6 pgs

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